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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,018	02/18/2004	Radu S. Jasinski	PU020207 Div. 1	2839
24498	7590	02/27/2006	EXAMINER	
THOMSON LICENSING INC. PATENT OPERATIONS PO BOX 5312 PRINCETON, NJ 08543-5312			BOCCIO, VINCENT F	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/781,018	Applicant(s) JASINSCHI ET AL.	
	Examiner Vincent F. Boccio	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment of 25 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8,9 and 11-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8,9 and 11-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/495,091.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/6/05</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

The Group and/or Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 2616.

Response to Arguments

1. Applicant's arguments filed 11/25/05 have been fully considered but they are not persuasive.

{A} Claims 13-16, as amended now include a medium to which the data is recorded and a nexus associated with the data, such as indexing or searching, this is deemed to overcome the 101 rejection previously set fourth.

{B} Claim 12 is amended to include roll parameter meta data, but, it is noted that the claimed limitations including Roll are in the alternative, therefore any arguments are not deemed persuasive, because the claim may be amended, but, to the examiner has not been narrower by introducing a limitation in the alternative, such as ROLL.

{C} In re page 7, applicant requests a reference for MPEG 7.

The examiner cites, Qian et al. (6,070,167, filed 3/2/1998), having a provisional date of 9/29/1997, with a provisional published on 5/20/2000, is now available (either date is good), on page 13 of the provisional document states, "MPEG 7 descriptors to images", "content based information retrieval" and "actual content related information is stored ... where one may find links, meta information, voice annotation, boundary information, security-copyright information and MPEG 7 reference information for each specific region".

The abstract of 6,070,167, states, "audiovisual description tagging of images for retrieval, editing and manipulations includes object based selection mechanisms" and MPEG 7 as well as MPEG 4 in col. 6-10.

The US seems to have all details, as the provisional document, if or upon making an attempt to overcome the 102 e reference by 131 affidavit, upon request or as need the examiner will provide the provisional document, establishing an earlier date of 9/29/1997, if necessary.

Therefore, since MPEG 7 is a meta data type standard, it would have been obvious to those skilled in the art to take advantage of a package such as MPEG 7 to utilize and allow for

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searching with respect to the established standard for just that purpose.

It is obvious to those skilled in the art to utilize established standards for their intended purpose, wherein MPEG 7 is for meta or various other typed of data, used for searching, retrieval, editing and manipulations, as is well known to those skilled in the art.

{D} In re pages 8-9 applicant requests reference for the official notices taken, requesting documents based on an allegation that the official notice features, were not known.

In review of the official notice taken page 5, for example, the examiner takes official notice, that working with normalized values is known which reduce computational requirements.

Does applicant really believe this to be a not known principle, as of this applications filing date???

To support the official notice, the examiner cites Li, 5,582,173, (9/18/95), which states, "For reasons of computational efficiency and predictability ... and for meaningful comparison of different correlation values, it is preferred ... that the ... values be normalized", col. 9, which provides clear advantages as previously stated in the last action, a well know principle to those skilled in the art, at the time of the invention.

Davis et al., {5,671,335, 5/23/1991}, also cited for the teaching of normalizing, col. 4, "normalized to a range of 0 and 1 for computational convenience", it is known that what is important is the comparison of normalized values for comparison, normalization, reduces computational requirements, which is convenient, as those skilled in the art realize, no other support is deemed necessary.

In addition the examiner has taken official notice on line segments, wherein applicant also seems to request a reference to take the meta data generated in Miyatake being start and end frame data for Zoom, Pan {X} and Pan {T} and show the data in a different form such as in a line segment display form.

Does applicant really believe that raw data of Miyatake, cannot be represented in a line segment form, as of this applications filing date???

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The examiner clearly knows and believes all skilled in the art could represent the data of Miyatake in a line segment type display format, as known that data such as start and end frames, can be represented in a line segment X axis being time of existence of the attribute or meta data, as all skilled in the art clearly realize, this is obvious and conventional and known prior to applicant's invention.

To support the examiner assertion of being well known at the time of the invention showing data of existence of a attribute and showing in a line segment form after being analyzed and located, the examiner cites:

Nagasaka et al. (10/24/1994) in Fig. 3, shows line segments for detected objects (people, see Fig. 4), determines through analysis, if a video frame sequence has the desired objects and shows the searched objects in a line sequence for searching and locating video footage of interests and also provides for multiple object lines for correlation of multiple objects and their existence {together or at the same time}, wherein the search object can be anything of the footage that exists in the footage (Fig. 6), therefore, rendering line segments corresponding to meta data (original data prior to being presented in the line segment display form), as is notoriously well known in the art, prior to applicants invention, this is just one teaching of line segments representing original raw numbers, as in Miyatake (Fig. 1, table 19).

Further the examiner has taken official notice on UML, as stated in applicant's own specification (US 6,748,158, Jasinschi et al.), col. 6, line 65 to col. 7, line 10,

"The FractionPresence and AmountofMotion data structures are expressed in the UML language, as suggested by the MPEG 7 community.", therefore, as stated by the this application the MPEG 7 community makes the suggestion to utilize and since the examine has supported the use of MPEG 7, the combination supports the examiner's official notice, with the teaching of MPEG 7 in combination with applicant's own specification.

Since applicant, is not deemed part of the community it was taught to applicant prior to filing and deemed obvious based on the suggestion by the MPEG 7 community, prior to filing.

This further supports the official notice with respect to the MPEG 7 standard.

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Since applicant desires to claim MPEG 7, therefore it must be known to those skilled in the art at the time of the invention for the utilization thereof, the examiner in view of the argument presented and challenging of the official notice taken now requires applicant to provide a copy to this file of the MPEG 7 standard/document known to applicant prior to filing, to determine wherein and when applicant invention is beyond what MPEG 7 suggests, also to provide clearly the meets and bounds of what is taught, especially in view of not accepting any official notice taken by the examiner based in his knowledge in the art, which is not only known to the examiner.

The examiner had taken official notice that UML is also well known the examiner cites Sheard et al. (US 6,208,345, 6/8/1998, CIP 4/15/1998), which states, at col. 31, lines 13-36,

"Various meta-model conversion utilities may be implemented for use with the more commonly used object models... A set of useful conversion utilities ... to convert the following modeling standards ... UML", therefore, UML is a known meta model conversion utility, being in a form of a visual interface, therefore, it would have been obvious to convert the meta data by the UML utility for improved presentation, analysis, thereby enhancing storage, editing and retrieval with respect to the meta data.

{E} The examiner had taken official notice on claim 9, which states,

"averaging of an displacement of feature points by comparing images, due to said motion type or determining motion with respect to feature points".

The examiner cites Graham (US 5,502,482, "PUB 3/1996"), which teaches at col. 2,

"a number of feature points can be identified in the image and their motion tracked from frame to frame, it is possible to calculate the motion of the camera relative to these points",

therefore, motion vectors with respect to point between images and "all required camera parameters (three spatial coordinates, pan and tilt angles and degree of zoom) from

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analysis of the camera images, a large number of points in the image would have to be identified and tracked" and

col. 4,

"The scale change can be determined by examining the difference between selected vectors as a function of separation of the point. The translation can be then determined from the average values of the measured vectors ...", as is clear to the examiner the feature points compared is the generation of the motion vectors, representing camera movement or camera translation, thereafter taking an average to generate translational or camera movement or camera work parameters by averaging the motion vectors generated, as taught by Graham.

The examiner renders this technique obvious to adopt to Miyatake, as taught by Graham, as one obvious technique to perform image analysis and generate camera work parameters or meta data related to camera movement or translation, as is obvious to those skilled in the art.

{F} The examiner had taken official notice on claims 15 and 16, which recite,

"generating line segments {display} for horizontal & vertical positions of focus operations, camera motion type with their respective directions converge or diverge".

Based on above it is obvious to generate and display line segments for various meta data, for presentation and representations on a display of camera translational motion, as is obvious to those skilled in the art.

To support the examiner the examiner cites, Bhanu et al. US 4,969,036, FD 3/1989),

Abstract, "Three dimensional self motion is expressed as a combination of rotation about the horizontal and vertical camera axis and the direction of camera translation ... FOC" and

col. 1, "determination of three dimensional self-motion of moving imaging devices." And

col. 2, "The new concept of "fuzzy", focus of expansion (FOE)"

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and

col., 3, "If the camera performs pure translation along a straight line in 3 D space, then ... all the displacements vectors extend through one particularly location in the image plane, called the Focus of expansion (FOE) under forward translation or focus of contraction (FOC) under backward translation. The 3 D vector passing through the lens center and the FOE (on the image plane) corresponds to the direction of the camera translation in 3 D space".

The examiner further renders obvious claims 15-16 in view of Bhanu and other provided art to generate display line segments, associated with data or meta data for a visual representation, associated with camera motion type wherein their respective directions, can converge or diverge, as recited in claims 15-16, as taught by the prior art and with Bhanu.

The examiner believes all requested references have been provided.

The examiner invites applicant to discuss any issues related to this case, to clarify any position, even provide assistance to determine patentable subject matter not deemed to be claimed as this point, based on the rejection of the claims.

Drawings

1. **The drawings are objected to for the second time under 37 CFR 1.83(a).** The drawings must show every feature of the invention specified in the claims. Therefore, the claimed subject matter based on claims 15-16, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

The examiner requires this drawing objecting to be satisfied or cancel the limitations or amend the drawings to include what is claimed, the arguments presented are not acceptable, all claimed subject matter will be illustrated in the drawings, as required by the examiner.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended.

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The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action.

The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 12 is rejected under 35 U.S.C. 102(b) as being anticipated by Miyatake et al. (US 5,267,034).

Regarding claim 12 as amended to include another alternative language limitation amended to include ROLL,

being one of:

- track, left & right;
- boom, up & down;
- dolly, forward & back;
- a roll clockwise & counter, all recited in the one of therefore, the rejection stands for amending, but not narrowing the claims.

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The examiner incorporates by reference the detailed action against claim 12, claim 12 is deemed met purpose of the generation of the camera work parameters or meta data, is for such issues of doing query operations or retrieving or indexing (col. 1, and Fig. 1, table 19 and 16, also 21 of 17).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyatake et al. (US 5,267,034) in view of Nagasaka et al. (US 6,195,497).

Regarding claims 13, 14-16, the examiner incorporates by reference the last action against claims 12-13 (amended limitation in the alternative, no change in scope), claims 14-16 (previously presented).

Regarding newly presented claims 17-18, such as:

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- mixture mode & non-mixture modes, is referring to display windows shown, such as applicants Fig. 4 being mixture mode, by not showing a frame times in the lower segments window, having an ICON and a segment, but, no time axis such as Fig. 5, wherein Fig. 5 represents a non-mixture mode, wherein a union of two camera motion types are described or shown/per displayed within a certain time window.

Nagasaka teaches providing relevant teachings with respect to showing more than one window, representing and directly reading on these two modes met by windows of presented data, in Fig. 1,

O the non-mixture mode is obvious in view of window 1114, having a time X time axis, which shows the relationship between objects and time, thereby representing a X direction time axis and showing more than one meta data for more than one object segment time line of objects searched and detected; and

O the mixture mode is a window that does not include temporal information by not having an, {X axis time line}, but, showing ICONS in a window, representing frame points but, no temporal locations identified, as taught by Nagasaka.

Therefore, it would have been obvious to one skilled in the art at the time of the invention to modify the applied art by incorporating the various display modes to enhance the user ability to locate and identify areas of interest by providing line segment type displays (mixture/non-mixture and calculating the ratio, to provide various display screens, such as can be done with the Meta data of Miyatake), thereby enhancing the ability of the user to identify areas for enhancing means to retrieve, as recited in the claims, as taught by Nagasaka.

5. Claims 8, 9, 11 and (second rejection for 13-18 in view of Vincent, line segments and modes) are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Miyatake et al. (US 5,267,034) and Nagasaka et al. (US 6,195,497) and further in view of Vincent (US 6,195,122).

Regarding claim 8, the examiner incorporates by reference the last action against claim 8, prior to being amended, as

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amended now recites a limitation not addressed by the examiner such as:

- generating meta data by determining values for each said camera motion types by calculating a ratio that corresponds to a length of time a specific motion type occurs for the sequence of images divided by a time length corresponding to the sequence of frames.

This newly recited limitation is read in light of specification, page 11, this calculation as recited corresponds to,

- a output change of motion type representing the length of time for which the motion type occurs, reads directly on the display output of Fig. 5 (applicant's) for example, which provides line segments for motion types wherein as shown provides for line segments durations with respect to a total duration shown, thereby calculating the output to generate the display output as shown, or a ratio between motion type and total shown duration, as shown, in the line segment form, of Fig. 5, the x axis representing frames times, duration and the vertical being an indication of existence of the motion types associated with the total duration shown would require calculations to display the data, as all skilled in the art would clearly realize to generate the display output as graphed.

Miyatake fails to disclose the above features.

Nagasaka, in Fig. 3 teaches the above limitation, wherein the line graphed segments shown read on the addressing of a calculating a ratio between length of time and the object occurrence to thereafter provide a display showing this relationship of occurrence of objects detected, in sections of video with respect to the video, as an Index, as taught by Nagasaka.

Therefore, it would have been obvious to those skilled in the art at the time of the invention to modify Miyatake by providing line segment type display with respect to meta data in the form of line segments, motion type times over video time and calculate to display this type of representation, as taught by Vincent, as is obvious to those skilled in the art.

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Further regarding claim 8 as amended, now includes all camera motion type such as and further including:

Miyatake reads in type of camera work, such as

- zoom +/-, reads on dolly forward and back;
- Pan X, +/-, track, left and right
- Pan T, +/-, but, fails to disclose all the camera work parameters such the Roll +/- or clockwise and counter clockwise.

The Examiner cites Vincent, which teaches obtaining all camera parameters recited, Fig. 3 for example provides for Pitch, Roll Yaw (Gyros 400 and 410) and X, Y and Z accelerometers 435, 445, 440, being six degrees of freedom, col. 20, lines 51- and col. 23, does many calculations to generate various screens such as Fig. 19, 20, 21, 22, 24, 25, 27, 28, 29, 30, 31, 34, 35, provides many teachings of calculating data and displaying various screens based generated Meta data, as taught by Vincent.

The examiner does rely on Vincent to further show various other display modes as recited in the claims and used against the claims.

Therefore, it would have been obvious to those skilled in the art at the time of the invention to modify the prior art Miyatake and fully merge the reference for all teachings as additive by Vincent to Miyatake, to detect camera Roll, clockwise and counter and to utilize the various teachings, calculations and display formats to retrieve desired video footage based on generated meta data, as taught by Vincent.

Regarding claim 9, the examiner incorporates by reference the last action against the claims 9 (previously presented).

Regarding claim 11, now corresponds to Official Notice supported above (arguments section), with respect to MPEG 7.

Claims 13-18 are analyzed and disclosed with respect to the applied art including Vincent, secondary rejection to overcome.

Conclusion

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS**

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ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Fax Information


Any response to this action should be faxed to:

(571) 273-8300, for communication as intended for entry,
this Central Fax Number as of 7/15/05

Contact Information

Any inquiry concerning this communication or earlier communications should be directed to the examiner of record, Monday-Tuesday & Thursday-Friday, 8:00 AM to 5:00 PM Vincent F. Boccio (571) 272-7373.

Primary Examiner, Boccio, Vincent
2/19/06


VINCENT BOCCIO
PRIMARY EXAMINER